Data Management Plan
High-Resolution Visual 3D Recontructions for Rapid Archaeological Characterization

OER Data Management Objectives

1. General Description of Data to be Managed

1.1 Name and Purpose of the Data Collection Project

High-Resolution Visual 3D Recontructions for Rapid Archaeological Characterization

1.2 Summary description of the data to be collected.

The final output will be geotiffs and a custom 3D texture model format that allows for dynamic level-of-detail rendering. The work discussed in the proposal will produce the following data: software, sensor data, 3D models, and scientific/archeological findings.

1.3 Keywords or phrases that could be used to enable users to find the data.

archaeological, archaeology, conservation, conserve, crm, cultural resource management, historic, marine archaeology, maritime, maritime archaeology, nautical, nautical archaeology, preserve, protect, protection, submerged cultural heritage, submerged cultural resource, uch, underwater cultural heritage, Port Royal, Jamaica, piracy, underwater cities, archeology

1.4 If this mission is part of a series of missions, what is the series name?

1.5 Planned or actual temporal coverage of the data.

Dates: 4/20/2015 to 4/27/2015

1.6 Planned or actual geographic coverage of the data.

Latitude Boundaries: 17.94 to 17.93

Longitude Boundaries: -76.86 to -76.83

1.7 What data types will you be creating or capturing and submitting for archive?

Cruise Plan, Cruise Summary, Data Management Plan, Highlight Images, Quick Look Report, Multibeam (raw), Multibeam (image), 3D Models

1.8 What platforms will be employed during this mission?

Kingfisher Pelican

2. Point of Contact for this Data Producing Project

Overall POC: Dr. Matthew Johnson-Roberson, Assistant Professor, University of Michigan, mattjr@umich.edu

Title: Assistant Professor, Prinicipal Investigator

Affiliation/Dept: Deep Robot Optical Perception Lab, University of Michigan

E-Mail: mattjr@umich.edu

Phone: 734-764-3767

3. Point of Contact for Managing the Data

Data POC Name: Susan Gottfried

Title: Data Management Coordinator

E-Mail: susan.gottfried@noaa.gov

4. Resources

4.1 Have resources for management of these data been identified? False

4.2 Approximate percentage of the budget devoted to data management. (specify % or "unknown")

unknown

5. Data Lineage and Quality

5.1 What is the processing workflow from collection to public release?

The software produced in this research study will be made publicly available through github, a free software hosting service. This will also serve as a backup for the code and as the projects versioning control system. This software will include real-time 3D reconstruction processing code, visualization tools, and the tablet app for public outreach. All software will be made open source to help build community support for the advancement of these technologies. The raw sensor data will be stored and backed up through the University of Michigans cloud hosting M+Box. The algorithm development will be documented through an electronic lab book that will be backed up offsite.

5.2 What quality control procedures will be employed?

The PI Dr. Johnson-Roberson, will handle the data management associated with the research aims of the project. He will take the lead and responsibility for coordinating and assuring data storage, access,
and disseminating the results of the project. The PI utilizes cloud backup as well as several on-site backup methods to ensure no data loss occurs.

6. Data Documentation

6.1 Does the metadata comply with the Data Documentation Directive? True

6.1.1 If metadata are non-existent or non-compliant, please explain:

not applicable

6.2 Where will the metadata be hosted?

Organization: An ISO format collection-level metadata record will be generated during pre-cruise planning

URL: http://www.ncddc.noaa.gov/oer-waf/ISO/Resolved/2015/
discovery and access. The record will be harvested by data.gov.

Meta Std: ISO 19115-2 Geographic Information with Extensions for Imagery and Gridded Data will be the metadata standard employed; the Library of Congress standard, MAchine Readable Catalog

(MARC), will be employed for NOAA Central Library records.

6.3 Process for producing and maintaining metadata:

Metadata will be generated via xml editors or metadata generation tools.

7. Data Access

7.1 Do the data comply with the Data Access Directive? True

7.1.1 If the data are not to be made available to the public at all, or with limitations, provide a valid reason.

Not Applicable

7.1.2 If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure.

Account access to mission systems are maintained and controlled by the Program. Data access prior to public accessibility is documented through the use of Data Request forms and standard operating procedures.

7.2 Name and URL of organization or facility providing data access.

Org:

URL:

7.3 Approximate delay between data collection and dissemination. By what authority?

Hold Time:

Authority: not applicable

7.4 Prepare a Data Access Statement

No data access constraints, unless data are protected under the National Historic Preservation Act of 1966.

8. Data Preservation and Protection

8.1 Actual or planned long-term data archive location:

The software produced in this research study will be made publicly available through github, a free software hosting service. This will also serve as a backup for the code and as the projects versioning control system. This software will include real-time 3D reconstruction processing code, visualization tools, and the tablet app for public outreach. All software will be made open source to help build community support for the advancement of these technologies. The raw sensor data will be stored and backed up through the University of Michigans cloud hosting M+Box. The algorithm development will be documented through an electronic lab book that will be backed up offsite.

8.2 If no archive planned, why?

8.3 If any delay between data collection and submission to an archive facility, please explain.

8.4 How will data be protected from accidental or malicious modification or deletion?

The PI utilizes cloud backup as well as several on-site backup methods to ensure no data loss occurs.

8.5 Prepare a Data Use Statement

Data use shall be credited to NOAA Office of Ocean Exploration and Research.